

Information Bulletin



Agriculture Street Landfill Voluntary Soil Removal Project November 16, 1998

LATEST INFORMATION

Since the issuance of the September Bulletin, EPA has conducted several Information Meetings and Availability Sessions in the community. The intent of these meetings was to prepare residents for the Voluntary Soil Removal Action that is currently underway. During these meetings Mr. Dennis Alexander, the Residents' Service Manager, was introduced along with representatives that will work on this project. Air monitoring and safety equipment were also on display and explanations about their function and use were provided.

EPA has placed a work plan and schedule in EPA's Outreach Office, for the public's viewing that describes the site activities to be performed this Fall. Also available are copies of technical papers on surface water runoff, air monitoring, rodent control, and utilities.

EPA'S RESPONSE TO CITIZENS' QUESTIONS

In the past few months, concerned citizens have provided elected officials with a list of questions on EPA's Voluntary Soil Removal Action. Though many of these questions have been addressed in the past at information meetings and availability sessions, they are included in this bulletin to help the community better understand the benefits of this action and the safety measures that are in place to protect human health and the environment. Two sets of questions were submitted. The first set is titled "EPA's Implementation Methods", and the second is titled "Effects of EPA's Remediation Plan".

EPA's Implementation Methods

1. During the one or two-year partial soil removal effort, why will EPA allow area residents to be exposed to airborne toxins and experience increased health risks? Many of these residents are suffering numerous health problems already and are vulnerable to the risk of exposure. Children and the elderly are also at greater risk of exposure.

EPA's Response:

Ensuring the safety of the residents, especially children and the elderly is EPA's top priority as we implement the voluntary soil removal action at the Agriculture Street Landfill. EPA understands the concerns that some residents have special health problems that they feel will be made worse by the removal action. As part of the soil safety steps, EPA will conduct dust control procedures (keeping the soil moist, as needed) and perform real time air monitoring during soil excavation. At anytime, if concentrations of dust exceed established standards, then the project will shut down until corrective actions are taken. If engineering actions such as dust control are not effective, EPA will temporarily relocate affected residents while their properties are restored. EPA's air monitoring protocol is described in more detail in the technical paper entitled "Residential Air Monitoring," which is available in the EPA's Outreach Office located in the community.

EPA and U.S. Army Corps of Engineers' field personnel have a significant level of experience with air monitoring protocols at other EPA residential cleanups. EPA is confident that its actions will not expose residents to additional contaminants during the soil removal effort and after completion, residents will have a much healthier environment.

Physical safety, particularly of the children is another part of ensuring the remedy is implemented in a protective manner. Security guards will be on duty 24 hours a day, 7 days a week. They will patrol the areas where equipment is located as well as those locations where work is in progress. To prevent potential accidents, EPA will install temporary fences, post warning signs, keep area speed limits below posted speed limits, and limit traffic on main roads as much as possible. Furthermore, we will offer opportunities for the children to get close up views of all of the construction equipment.

These and other safety measures are discussed in the *Resident Action Guide* (See Tab 1; *Working Together*).

2. Why is EPA considering allowing contaminated soil to remain that will endanger the drinking water with the risk of toxins entering through cracked or leaking underground pipes or pipes that are not completely sealed at joints and elbows?

EPA's Response:

The soils that remain below the excavated and back-filled material present no threat to drinking water pipes that bring city water to the residences. Water lines operate using positive pressure. This positive pressure acts to prevent the outside soil from entering the pipes.

Additionally, EPA will work with both the utilities and the community on a protocol for future utility maintenance to ensure continued protection of the residents.

3. Information by the manufacturer of the geotextile mat that EPA plans to use to separate the toxic soil from the new soil explains that it is only resistant to "commonly encountered soil chemicals...". The mat is clearly not resistant to high levels of lead, arsenic, dioxins, mercury, PAHs, and the other 140 toxins that exist in the Agriculture Street Landfill site. Why use this mat as compared to other barriers?

EPA's Response:

None of the contaminants found in the soil at the Agriculture Street Landfill site will adversely affect the geotextile barrier. Geotextile fabric barriers are routinely used in environmental cleanups. The manufacturers disclaimer cited above is usually used for clients attempting to use the geotextile fabric barrier in an industrial setting where the concentrations of contaminants are extremely high. Although some of the contaminants at Agriculture Street soils are at levels that pose a potential risk to human health, such levels are

not sufficiently high enough to degrade the geotextile fabric.

As EPA explained in the recent meeting with City of New Orleans officials and community representatives, several of the chemicals referenced as "toxins" are commonly encountered chemicals that are typically found in soils.

The geotextile fabric material has the optimum overall engineering performance standards for this intended use: it allows water to flow freely preventing surface ponding and serves as a marker separating clean soil from landfill material. The Corps is currently testing the selected geotextile fabric at its lab to ensure the product can meet its performance requirements.

4. Soil removal efforts in the 48 acres of the undeveloped and densely vegetated area will result in rodent migration to the residential community and surrounding neighborhoods. Why will EPA allow the rodent migration as part of the remedy?

EPA's Response:

EPA has been previously informed of this concern from residents and has contracted Dr. William Jackson, former Director of the Center for Environmental Research at Bowling Green State University to help develop a rodent control program prior to site construction.

Dr. Jackson has studied rodent populations and implemented rodent control methods for a majority of his professional career. Dr. Jackson has been a consultant to the United Nations and World Health Organizations in dealing with rodent control issues as well as designing numerous inner city and rural pest control programs. Recently, Dr. Jackson was responsible for developing Boston's rodent management program and is currently designing a program for the site. Dr. Jackson has already conducted an initial investigation of the undeveloped property and has provided EPA with appropriate methods for dealing with the rodents.

Dr. Jackson's expertise will be used, whenever necessary, to manage the rodent population. Already, in his initial review of the site, Dr. Jackson observed that the undeveloped property lacks the necessary habitat and food supply for a substantial rodent population and that most of our control efforts should be focused in the actual residential area where a habitat conducive to supporting rodents possibly exists.

Site specific information on EPA's rodent control program is contained in the *Resident Action Guide* and is also available at the EPA's Outreach Office located in the community.

5. EPA's remediation actions will be conducted from 7:00 a.m. to 4:30 p.m., Monday through Saturday. How can EPA justify disrupting the community with increased noise, truck traffic, use of heavy equipment, and interruptions to electric and water services? During these hours residents will have limited access to their properties and outdoor activities will be restricted. Special care has not been provided for outdoor pets.

EPA's Response:

EPA is committed to providing a healthier environment for the residents. In order to accomplish this goal, there will be some temporary inconveniences to the residents. However, we are trying to minimize interruptions of electric, water, and other utility services. For instance, EPA will temporarily route affected utilities around excavation zones and then replace lines prior to backfilling with clean soil.

Many residents share EPA's belief that the benefits from a safe, healthy environment outweigh these temporary inconveniences. Those participating will be able to ensure that their homes are safe for their children, family members, and friends.

6. How can EPA justify a remedy that will allow the mixture of contaminated soil with new soil through lawn maintenance? For example, watering lawns can mix new soil with contaminated soil, which is located under a house or on neighboring property that is untreated.

EPA's Response:

The planned soil removal action will prevent the mixing of contaminated soil with new soil. The two-foot depth of excavation is deeper than the root zone of most garden plants. The geotextile fabric barrier will serve as a marker and also prevent landfill debris from migrating into the clean backfill. EPA will provide information to the residents that participate in the voluntary action on the proper care that should be taken when conducting lawn maintenance. In the near future, this information will be placed in the EPA's Outreach Office located in the community.

Routine lawn watering will not cause contaminated soils to move from contaminated areas into uncontaminated areas. The type of contaminants found at this

site are not soluble; therefore, they do not dissolve in water and move into other soil areas. These contaminants bind to soil; therefore the clean backfill and the fabric barrier would have to be removed in order for contamination to occur. Subsurface migration of soil particles does not readily occur.

7. The vents under the eaves of homes will serve as pathways for airborne toxins to enter the homes during site activities. How can EPA insure that contaminated dust will not enter the homes through the vents?

EPA's Response:

EPA will be implementing an air monitoring program to prevent dust from becoming airborne and entering the homes. For example, EPA will use dust control procedures, such as soil moistening, to ensure airborne dust does not become a problem. A more detailed description of EPA's planned air monitoring program can be found in the response to Question # 1 as well as the *Resident Action Guide (Tab 1; Working Together)*.

8. EPA's plan to use silt fencing will not prevent all the toxic soil from entering the storm water drainage system. Why is EPA proposing such an insufficient barrier?

EPA's Response:

EPA will use several methods for controlling run-off at the site. These methods are used commonly throughout the country and are effective erosion control methods. A silt fence, along with other erosion control measures, will control runoff during excavation activities at the site.

A technical paper for erosion control has been developed and is available at the EPA's Outreach Office located in the community. Additional information on our erosion control plans can be found in the *Resident Action Guide (See Tab 1; Working Together)*.

9. Why will EPA further increase contaminated run-off from a large portion of the undeveloped area, which is elevated approximately fourteen feet above residents' drains, into the residential area?

EPA's Response:

EPA's plans to control the run-off from the undeveloped property as part of its planned action. The undeveloped property will be graded so that most of the

run-off from the property drains away from residential properties. Currently, run-off from the undeveloped property drains into the community during heavy rain events.

10. After flooding the groundwater will contaminate the clean soil placed in the yards of the residential area. Why is EPA proposing such a risk to residents?

EPA's Response:

EPA's actions will eliminate the risk from exposure to the contaminated soil. Because a geotextile fabric barrier will be placed between the contaminated soil and the clean backfilled material, contaminants will not move with the water into the clean zone. As discussed in Question # 6, the contaminants are not soluble; meaning they do not dissolve and move with water. The contaminants bind to soils in the subsurface, below the barrier and therefore, cannot migrate into the clean soils.

In addition to eliminating movement of soil particles, the barrier serves as a demarcation zone to residents and workers. Individuals who excavate soil at the site following the completion of the soil removal action, will know when they have reached the end of the "clean" fill soil and can act responsibly to minimize potential exposure.

Effects of EPA's Remediation Plan

1. Why does EPA's \$20 million remediation plan only address 10% of the contamination in the residential area?

EPA's Response:

EPA's selected action will address all of the threats posed by the site. EPA's objective at the Agriculture Street Landfill site is to prevent residents from coming into direct contact with the contaminated portions of the landfill. To achieve that objective, EPA will excavate the top two feet of soil, put down a geotextile fabric barrier, and cover that over with a clean soil barrier. The geotextile fabric barrier placed below the clean soil will provide a durable marker to prevent inadvertent excavation below the clean soil. Twenty million dollars will be used to address both the residential and undeveloped properties.

The Agriculture Street Landfill site has many characteristics in common with other municipal waste landfills which have become Superfund sites. When municipal landfill sites have large amounts of a mixture of wastes, it is impractical to either remove or treat

all of the wastes. Response actions at landfill sites typically involve some sort of containment action which isolate the waste away from any potential receptors. In this particular case, the planned action can effectively address the threat posed by direct contact with the wastes.

2. The 140-plus contaminants found in the landfill extend seventeen feet below ground. Even after the EPA completes its remediation, residents will still live on top of a landfill. Why does EPA feel that taking only two feet of the landfill and leaving the other toxins is satisfactory?

EPA's Response:

EPA's selected action will protect human health and allow people to continue to live in their homes. Our objective is to eliminate the potential exposure to the landfill contents. We can successfully achieve our objective by excavating the top two feet of soil, placing a geotextile fabric barrier, and covering with clean soil. The remaining landfill contents, regardless of the depth, will not be a threat to those residents living on top of the site because there will not be any direct contact with the landfill material.

As part of EPA's investigation of the site, a risk assessment was conducted to evaluate the risks to residents from exposure to multiple chemicals through multiple routes of intake (inhalation, ingestion and dermal contact) and multiple pathways. Most of the chemicals are at levels too low to pose any threat according to EPA's risk standards. However, a few - namely lead, arsenic, and poly-aromatic hydrocarbons (PAHs) - have been found in the surface soils at levels high enough to be of concern.

As a result of the contamination found in the surface soils, it is necessary to eliminate the direct contact threat by implementing the planned removal actions.

The planned action at the Agriculture Street Landfill site is similar to the remedies selected at approximately 40 other Superfund sites on residential properties. The remedies for most of these sites involved removal and replacement of soil to a maximum depth of two feet and the use of a filter fabric. Excavating to a two-foot depth is a practical approach at this site because it is deeper than the root zone of most garden plants and below the depth to which children might dig. The geotextile fabric barrier placed below the clean soil will provide a durable marker to prevent inadvertent excavation below the clean soil.

As part of our integrated removal/remedial investigation, we evaluated the risks after the implementation of the action, as a result of exposure to the remaining contaminated material (below the two-foot clean soil line). The most likely potential exposure would be to a utility worker. Even when assuming that the worker would be in contact with the soil for 250 days a year for 25 years, there was no significant risk.

Given the types of contaminants that exist in the surface and subsurface soils and EPA's extensive experience to remediate soils in residential areas, EPA is confident that the soil removal actions at the Agriculture Street Landfill site will protect human health and the environment.

3. How can EPA propose a remediation that will allow the new soil to be contaminated as a result of rains, flooding, and soil subsidence? The continuation of these natural occurrences will leave the site as it was prior to EPA's actions.

EPA's Response:

The contaminants found at the site tend to adhere to soil particles and are not easily soluble. Thus, contaminants in the subsurface soils will stay in that zone, unless the soil barrier erodes. The permeable geotextile fabric barrier will allow rainfall to continue to percolate through the soils, prevent the upward migration of landfill debris, and serve as a marker to prevent inadvertent excavation below the clean soil.

EPA is confident that the soil removal actions planned for the site will be effective. First, we reviewed the soil actions that were previously performed as part of the Moton Elementary School construction. EPA's sampling of the property show that the three-foot clean soil barrier that was installed prior to constructing the school, has not been affected by contaminants found at lower depths. Several major rainfalls have occurred over the years and the effectiveness of the soil barrier remains unchanged.

Second, EPA has implemented similar actions at approximately 40 other Superfund sites. We are unaware of any problems occurring which have compromised the remedies at these sites.

Finally, EPA will continue to maintain a presence at the Agriculture Street Landfill site by reviewing the site every five years to ensure that the soil removal actions remain protective. EPA will accelerate the first

review to 1 year after completion of the action and subsequent reviews at a maximum of five years thereafter. For instance, soil barrier erosion or any type of barrier penetration would be key areas that would be evaluated in this review process.

Therefore, we believe that the planned action will remain protective of human health and the environment.

4. How can EPA justify actions that will disrupt the hydrology of the area by raising the elevation and decreasing water absorption, thereby worsening flood conditions in the area?

EPA's Response:

EPA's actions will not disrupt the hydrology of the area. Specifically, soil removal activities planned for the undeveloped property will actually improve the site drainage. Since the city of New Orleans is below sea level, the addition of soil will facilitate better drainage. As part of EPA's planning, the U.S. Army Corps of Engineers will develop drainage and flood control measures to address both run-on and run-off from heavy rainfall and storms. The undeveloped property will be regraded to improve drainage and aid in flood control. The placement of a geotextile fabric barrier that allows water to drain through and clean soil will control the future migration of contaminants.

5. How can EPA justify an action that will result in increased underground utility line disruption as a result of the differential settling in areas where waste will be removed and replaced with soil versus areas not replaced? (Under homes, streets, etc.)

EPA's Response:

Subsidence of utility lines, earth beneath the homes, and streets is a common problem throughout the city of New Orleans given its location below sea level. The voluntary soil removal action will not impact differential settling because the excavated soil will be replaced with clean soil that will be compacted.

6. How can EPA justify the devaluation of property values due to toxic wastes being allowed to remain under homes and in untreated yards?

EPA's Response:

Though this residential development was knowingly built on a former landfill, EPA is not aware of any evidence that confirms the devaluation of property values. However, those properties that participate in this

voluntary effort will receive a Work Completion Certificate that states the soil removal action was completed on the property. We believe that our actions will improve the residents' chances of selling their property in the future.

If there are specific examples of problems with real estate transactions or lending institutions because of environmental contamination on the Site, please notify EPA. Our office will be glad to contact those entities to provide information about the response action.

7. How can EPA allow a remedy that would caused residents to have limited use of property? Home improvements, repairs, and gardening would be restricted.

EPA's Response:

We are not imposing any restrictions on the use of the residential properties at the site. Once the action has been implemented at the site, residents will be able to garden and make home improvements and repairs in a healthier environment. The two-foot level selected for excavation is below the root level for gardens and below the level that children may dig. If there is the need to excavate beyond the two foot barrier, then proper precautions need to be taken to dispose of the contaminated material.

Because the city is below sea level, there are practical limitations of what type of building that can be done (e.g., putting in basements or swimming pools) that is unrelated to our activities.

8. Why does EPA propose a remedy that will cause the removal of all trees in residential areas and limit the enjoyment of the homes, decreases property value and results in increased utility costs? EPA's plan to leave tree roots that are two feet below ground will result in soil subsidence from decomposing roots.

EPA's Response:

We understand the concern that the neighborhood will not retain its same character should all of the trees be removed. We are hoping to minimize these effects but we feel it is imperative that this action be implemented to protect the health of the residents.

EPA recommends that most of the trees and shrubs be removed, so that a continuous permeable barrier can be installed on the property, thereby improving upon the effectiveness of the remedy. Removing whole trees will also minimize any subsidence problems due to

the property being below sea level. However, if a resident wants to keep a particular tree in their yard, then we will strive to accommodate the resident. Be aware, that the soil removal action may stress or damage any trees that remain to the point where they cannot recover.

Once EPA completes its actions, the property will be landscaped in consultation with the property owner. The landscaping will include the replacement of trees and shrubs. We will work to replace any removed vegetation with the same variety as much as possible, although we are limited to what is commercially available.

Upon completion of the action, EPA will issue a certificate to each owner to verify that the soil removal action was completed on the property. We believe that the soil removal actions will enhance the ability to sell property at the site. We have performed these types of actions with restored landscapes at other residential sites and are not aware of any situations where property values decreased after the action was implemented.

Furthermore, whole trees left in place generally cause more subsidence than decomposed roots since the root systems absorb water from the deeper soils which causes the soil to consolidate and subside.

9. What gives EPA the right to make decision to not plant trees of the same type and age as those cut down? This action would permanently reduce the value of some homes.

EPA's Response:

EPA will recommend that most trees and shrubs be removed, so that a continuous permeable barrier can be installed on the property. It will be the property owner's final decision on whether the trees and shrubs stay or not. Excavation around trees and shrubs (if they were left in place) tends to damage root systems. Usually the plants are unable to recover and, over a course of time, prematurely die.

Though trees of the same age will not be replaced, the property will be landscaped in consultation with the property owner. Working with the property owner, we will attempt to find the same varieties of trees and shrubs, depending on commercial availability.

10. Why will EPA implement a remedy that will impact the structural integrity of the slab when the contaminated soil is removed adjacent to the slab?

EPA's Response:

The depth of soil being excavated will not affect the structural integrity of the slab. Most structures in this area are commonly built on pilings.

11. How can EPA justify making the utility companies responsible for removing contaminated soil, off site disposal, and the replacement of mat and clean soil when performing underground maintenance and emergency repairs?

EPA's Response:

EPA will work out the details with the utility companies and the community on the appropriate protocol that should be followed when servicing utility lines in contaminated soils. Each utility company will use its discretion on procedures for disposing of the excavated material.

12. Who gives EPA the right to expose residents to contaminated materials excavated as a result of maintenance and repair activity? Surface soil and yards can be contaminated as a result of maintenance activities.

EPA's Response:

EPA, working with the community and utility companies, plans to establish a protocol for accessing utilities while minimizing potential exposure. This protocol is available for review at the EPA's Outreach Office located in the community. EPA expects to conduct its response action only if the property owners give consent.

REMINDER. . .

Voluntary rodent control services are available to residents that live on-site. This service is free and is also available to those who may choose not to participate in the soil removal effort. Consent forms for this service are available at EPA's Outreach Office located on 3221 Press Street. If you need additional information regarding this service, please contact Mr. Dennis Alexander, the Residents' Service Manager, at (504) 460-1071.

Also, if you have suggestions or ideas you would like to see occur to enhance this project and community involvement, please call EPA's 1-800 number or one of the following EPA representatives.

FOR MORE INFORMATION...

Ursula Lennox
Remedial Project Manager
EPA Region 6 (6SF-LP)

1445 Ross Avenue
Dallas, Texas 75202-2733
(214) 665-6743 or Toll-Free 1-800-533-3508

Lon Biasco
On-Scene Coordinator
U.S. EPA (6SF-RA)

1445 Ross Avenue
Dallas, Texas 75202-2733
(214) 665-6673 or Toll-Free 1-800-533-3508

Janetta Coats
Community Involvement Coordinator
EPA Region 6 (6SF-PO)

1445 Ross Avenue
Dallas, Texas 75202-2733
(214) 665-7308 or Toll-Free 1-800-533-3508

Denise Batiste
EPA Community Outreach Office
3221 Press Street
New Orleans, Louisiana 70126
(504) 944-6445

Office Hours:
Monday: Noon - 6:00 p.m.
Tuesday, Thursday, Friday: 3:00 p.m. - 6:00 p.m.
Wednesday: 10:00 a.m. - 3:00 p.m.
and by appointment

Information Repositories

Information about the Agriculture Street Landfill Site is available at the following locations:

U.S. Environmental Protection Agency
1445 Ross Avenue
7th Floor
Dallas, Texas 75202
(214) 665-6548

U.S. EPA Community Outreach Office
3221 Press Street
New Orleans, Louisiana 70126
(504) 944-6445



U.S. EPA Region 6
1445 Ross Ave. (6SF-P0)
Dallas, Texas 75202-2733